

ABSTRACT

A semiconductor circuit which can restrain increase in manufacturing cost and layout area to a minimum level and can realize high speed and low power consumption. Bias voltages with different levels are generated corresponding to a mode control signal by a bias voltage supply circuit comprising PMOS transistors P2 and P3 which have different voltages applied to the respective sources and the mode control signal input to the [respective] gates. The generated bias voltages are supplied to the n-wells of PMOS transistors. During operation, a bias voltage that is almost the same as the operation voltage is applied to the n-wells of PMOS transistors. During standby, a bias voltage higher than the operation voltage is supplied to the aforementioned n-wells of PMOS transistors. In this way, the driving currents of the transistors can be kept at a high level during operation, while leakage currents of the transistors can be restrained during standby. Consequently, high speed and low power consumption can be realized.